

LISTING OF CLAIMS

A complete listing of the claims in this application, with parenthetical indication of the status, is provided below. Claims 21-37 are indicated as “previously presented” as the Examiner has indicated that the claims will be considered following the submission of this communication.

1. (Canceled).
2. (Canceled).
3. (Canceled).
4. (Canceled).
5. (Canceled).
6. (Canceled).
7. (Canceled).
8. (Canceled).
9. (Canceled).
10. (Canceled).
11. (Canceled).
12. (Canceled).
13. (Canceled).
14. (Canceled).
15. (Canceled).
16. (Canceled).
17. (Canceled).
18. (Canceled).
19. (Canceled).
20. (Canceled).

21. (Previously Presented) A data retrieval device, comprising:
a rearrangement means, which applies a first rearranging of a first data group that
includes a plurality of rule data arranged in an order of priority of the rule data,

said first rearranging being a sequential ordering according to the numerical value of the rule data;

an assignment means for grouping the rearranged first data group to provide a plurality of memory blocks respectively having an assigned range corresponding to the rearranged first data group, wherein said rearrangement means applies a second rearranging within each of the plurality of memory blocks, said second rearranging being a priority ordering according to said order of priority of the rule data; and

a block selection means, for specifying one of the plurality of memory blocks to provide a specified memory block, wherein said specifying is based upon a comparison of input retrieval data to the assigned ranges of the plurality of memory blocks.

22. (Previously Presented) The data retrieval device of claim 21, wherein only the specified memory block is activated at the time of retrieval, with other blocks from the plurality of memory blocks not being activated, such that a power consumption at the time of retrieving is reduced.

23. (Previously Presented) The data retrieval device as set forth in claim 21, wherein the block selection means comprises:

a storage data range indication register for indicating the assigned range corresponding to at least one the plurality of memory blocks; and

a comparison specifying means for comparing the contents of the storage data range indication register with input retrieval data and specifying a memory range including a memory block storing data to be compared with the input retrieval data, wherein the block selection means activates at the time of retrieving the memory block storing data to be compared with the input retrieval data.

24. (Previously Presented) The data retrieval device as set forth in claim 21, further comprising:

a block specifying register for holding a combination of one or more of said plurality of memory blocks by relating to reference numbers, wherein the block selection

means activates at least one memory block in accordance with a value stored in said block specifying register.

25. (Previously Presented) The data retrieval device as set forth in claim 21, wherein said plurality of memory blocks are composed of content addressable memory, and further comprising a retrieval controlling unit that performs content address retrieving by comparing said input retrieval data to the assigned ranges of the plurality of memory blocks and outputs an address of said memory block hit by the content address retrieving.

26. (Previously Presented) The data retrieval device as set forth in claim 22, wherein said plurality of memory blocks are composed of content addressable memory, and further comprising a retrieval controlling unit that performs content address retrieving by comparing said input retrieval data to the assigned ranges of the plurality of memory blocks and outputs an address of said memory block hit by the content address retrieving.

27. (Previously Presented) The data retrieval device as set forth in claim 23, wherein said plurality of memory blocks are composed of content addressable memory, and further comprising a retrieval controlling unit that performs content address retrieving by comparing said input retrieval data to the assigned ranges of the plurality of memory blocks and outputs an address of said memory block hit by the content address retrieving.

28. (Previously Presented) The data retrieval device as set forth in claim 24, wherein said plurality of memory blocks are composed of content addressable memory, and further comprising a retrieval controlling unit that performs content address retrieving by comparing said input retrieval data to the assigned ranges of the plurality of memory blocks and outputs an address of said memory block hit by the content address retrieving.

29. (Previously Presented) A data retrieval method, the method comprising:

applying a first rearranging of a first data group that includes a plurality of rule data arranged in an order of priority of the rule data, said first rearranging being a sequential ordering according to the numerical value of the rule data;

grouping the rearranged first data group to provide a plurality of memory blocks respectively having an assigned range corresponding to the rearranged first data

group;

applying a second rearranging within each of the plurality of memory blocks, said second rearranging being a priority ordering according to said order of priority of the rule data; and

specifying one of the plurality of memory blocks to provide a specified memory block, wherein said specifying is based upon a comparison of input retrieval data to the assigned ranges of the plurality of memory blocks.

30. (Previously Presented) The method of claim 29, wherein only the specified memory block is activated at the time of retrieval, with other blocks from the plurality of memory blocks not being activated, such that a power consumption at the time of retrieving is reduced.

31. (Previously Presented) The method of claim 29, wherein specifying one of the plurality of memory blocks comprises providing a storage data range indication register for indicating the assigned range corresponding to at least one the plurality of memory blocks, comparing the contents of the storage data range indication register with input retrieval data and specifying a memory range including a memory block storing data to be compared with the input retrieval data, and activating at the time of retrieving the memory block storing data to be compared with the input retrieval data.

32. (Previously Presented) The method of claim 29, wherein said plurality of memory blocks are composed of content addressable memory.

33. (Previously Presented) A data retrieval apparatus, the apparatus comprising:
a retrieval control unit, which applies a first rearranging of a first data group that includes a plurality of rule data arranged in an order of priority of the rule data, said first rearranging being a sequential ordering according to the numerical value of the rule data, and which groups the rearranged first data group to provide a plurality of memory blocks respectively having an assigned range corresponding to the rearranged first data group, and which applies a second rearranging within each of the plurality of memory blocks, said second rearranging being a priority

ordering according to said order of priority of the rule data; and

a block selection unit, in communication with the retrieval control unit, which specifies one of the plurality of memory blocks to provide a specified memory block, wherein said specifying is based upon a comparison of input retrieval data to the assigned ranges of the plurality of memory blocks.

34. (Previously Presented) The data retrieval apparatus of claim 33, wherein only the specified memory block is activated at the time of retrieval, with other blocks from the plurality of memory blocks not being activated, such that a power consumption at the time of retrieving is reduced.

35. (Previously Presented) The data retrieval apparatus of claim 33, wherein the block selection unit comprises:

a storage data range indication register for indicating the assigned range corresponding to at least one the plurality of memory blocks; and

a comparison specifying unit for comparing the contents of the storage data range indication register with input retrieval data and specifying a memory range including a memory block storing data to be compared with the input retrieval data.

36. (Previously Presented) The data retrieval apparatus of claim 33, further comprising:

a block specifying register for holding a combination of one or more of said plurality of memory blocks by relating to reference numbers; and

a block controlling unit for activating at least one memory block in accordance with a value stored in said block specifying register.

37. (Previously Presented) The data retrieval apparatus of claim 33, wherein said plurality of memory blocks are composed of content addressable memory, and the retrieval controlling unit performs content address retrieving by comparing said input retrieval data to the assigned ranges of the plurality of memory blocks and outputs an address of said memory block hit by the content address retrieving.